

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Highline Exploration, Inc.
Well Name/Number: Ritta Pratt 51-17
Location: SE SE Section 17 T1S R32E
County: Big Horn, MT; Field (or Wildcat) Toluca

Air Quality

(possible concerns)

Long drilling time : No, 2 to 3 days drilling time.

Unusually deep drilling (high horsepower rig): No, single derrick drilling rig, 500 HP, to drill to 795' TD

Possible H2S gas production: None

In/near Class I air quality area: No Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: No special concerns – using single rig to drill to 795' TD.

Water Quality

(possible concerns)

Salt/oil based mud: Surface hole will be drilled with freshwater. Air will be used out from under surface casing to total depth.

High water table: No high water table anticipated.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral drainage to Peritsa Creek, about 1/8 of a mile northeast from this location. Stock pond at this point in the unnamed ephemeral drainage.

Water well contamination: No, water wells within 1 mile of this location. Surface casing will be set at 80'. Drilled with freshwater. Surface casing will be run and cemented to surface from 80'.

Porous/permeable soils: No, sandy-silty bentonitic soils.

Class I stream drainage: No

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 80' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings anticipated.

High erosion potential: No, cut or fill need. Small single derrick self leveling rig will be used.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 100'X100' location size required. Will be using a self leveling drilling rig, so very little dirt work is required.

Damage to improvements: None, surface use is grazing land.

Conflict with existing land use/values: Slight

Mitigation

- ☐ Avoid improvements (topographic tolerance)
- ☐ Exception location requested
- ☒ Stockpile topsoil
- ☐ Stream Crossing Permit (other agency review)
- ☒ Reclaim unused part of wellsite if productive
- ☐ Special construction methods to enhance reclamation
- ☐ Other _____

Comments: Will use existing county freeway frontage road, Highway 87 and existing two track ranch trail. A short new access road will be built from the existing ranch trail into this location. Drilling and misting fluids will be allowed to dry in the earthen pits. Cutting will be buried in the earthen pits. Pits will be backfilled when dry. No special concern.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest buildings are about 2.25 miles to the east southeast and the town of Hardin is 8 miles to the east of this location.

Possibility of H2S: None

Size of rig/length of drilling time: Single drilling rig 2 to 3 days drilling time

Mitigation:

- ☐ Proper BOP equipment
- ☐ Topographic sound barriers
- ☐ H2S contingency and/or evacuation plan
- ☐ Special equipment/procedures requirements
- ☐ Other: Will use a diverter and knife valve instead of a BOP. Due to the low

pressure gas zone anticipated.

Comments: No concerns

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: No identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threaten or endangered is the Black-footed Ferret. Candidate specie is the Greater Sage Grouse. Proposed specie is the Mountain Plover.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite

___ Other: _____
Comments: Private surface lands. Location is between Interstate 90 and Highway 87. No concerns

Historical/Cultural/Paleontological

(possible concerns)
Proximity to known sites: None identified
Mitigation
___ avoidance (topographic tolerance, location exception)
___ other agency review (SHPO, DSL, federal agencies)
___ Other: _____
Comments: On private surface lands. No concerns.

Social/Economic

(possible concerns)
___ Substantial effect on tax base
___ Create demand for new governmental services
___ Population increase or relocation
Comments: No concerns

Remarks or Special Concerns for this site

Well is a 795' Frontier (Belle Fourche) Formation test, within the Toluca Gas Field.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact expected, some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): Steven Sasaki _____
(title:) Chief Field Inspector _____
Date: September 11, 2010 _____

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)
Big Horn County water wells _____
(subject discussed)

September 11, 2010

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA
COUNTIES, Big Horn County

(subject discussed)

September 11, 2010

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____